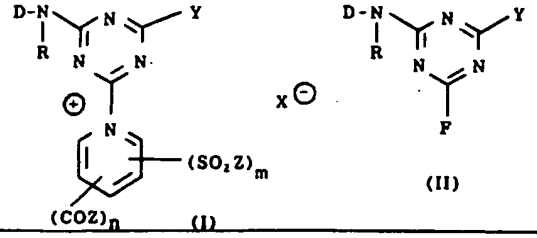
91-088292/13 A60 E23 F06 (E21) PARB 16.09.89
BAYER AG *EP -418-623-A
16.09.89-DE-930996 (27.03.91) C09b-62/04

**Reactive dyestuff prodn. by introducing cationic pyridino gp - into s=triazinyl-amino dyestuff cpd, for dyeing and printing e.g. cotton and polyamide**

C91-037486 R(CH DE FR GB LI)

Prodn. of reactive dyestuffs of formula (I) having a cationic 4-pyridino-s-triazin-2-yl-amino substit. involves reacting a 4-fluoro-s-triazin-2-yl-amino-substd. dyestuff of formula (II) with a pyridine cpd. of formula (III) in the presence of an acid-binding agent (IV).

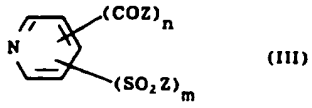


(I)



(II)

A(3-A5, 5-F1D, 8-E3, 12-S5H) E(21-D1, 21-D08, 25) F(3-F3, 3-F6, 3-F19, 3-F22)



(III)

D = the radical of inorganic chromophore;
R = H or 1-4C alkyl;
n and m = 0, 1 or 2 with m + n = max. 2;
Y = a substit. which is not fibre-reactive;
Z = OH, $OR_1$, $NR_2R_3$ or OM;
M = an alkali(ne earth) metal, esp. Li, Na or K;
$X^-$ = the anion of a mono- or polybasic (in)org. acid;
$R^1$ = opt. substd. 1-4C alkyl;
$R_2$ and $R_3$ = H or $R_1$; or $NR_2R_3$ = a 5- or 6-membered heterocycle.

**USE/ADVANTAGE**

(I) are useful for dyeing and printing natural and synthetic materials contg. OH or amide gps., esp. cellulose and polyamides. They are esp. suitable for dyeing





cellulose materials by the exhaustion and slop padding cold dwell technique and for printing cotton and staple rayon. Good build-up, high fixing yields and good fastness, esp. wet fastness, are obtd.

**ALSO CLAIMED**

The claims also cover aq. solns. with pH 4-9, pref. 6-8, contg. 2-50 esp. 5-30 (wt.)% (I), 0-1, pref. 0-0.5% inorg. neutral salt, 0-40% water-miscible org. solvent (V) and opt. other conventional additives (VI), e.g. buffers.

**PREFERRED CONDITIONS**

Reaction is carried out in aq. or aq.-org. medium at 40-140, pref. 60-90°C and pH 4-10, pref. 6-8. The aq. (I) solns. are prepd. by reacting (II), opt. in the form of aq. solns. or dispersions obtd. by coupling or condensation, with (III) in aq. or aq.-org. medium, followed by pressure permeation. (V) and opt. (VI) may be added before, during or after permeation.

**EXAMPLE**

71.8 g 2-(3-(3-carboxy-5-hydroxy-1-(4-sulphophenyl)-pyrazol-4-yl-azo)-4-sulpho-anilino)-6-(N-methyl-6-sulpho-ethylamino)-4-fluoro-s-triazine stirred in 250 ml water, adjusted to pH 7.5 with soda soln., treated with 12.9 g nicotinic acid and reacted at 80-85°C and pH 7.5, giving 350 ml dyestuff soln. This was desalinated and conc. by pressure permeation, using a synthetic polymer membrane with a cut-off level of 1000. 180 g conc. dyestuff soln. were obtd. The soln. was treated with 2 g $NaH_2PO_4$, 2g $Na_2HPO_4$ and 6 g $\varepsilon$-caprolactam and made up to 200 ml with deionised water.(18pp018MBDwgNo0/0).

(G) ISR: DE2634308 J61040367